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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/643,880

08/20/2003

Chien-Chung Huang

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5210

7590

08/27/2004

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EXAMINER

GUSHI, ROSS N

ART UNIT

PAPER NUMBER

2833

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

CA

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/643,880	HUANG, CHIEN-CHUNG	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ross N. Gushi	2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-18 is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 6-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/29/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Yao and Yen. Regarding claim 1, Chen discloses an electronic device having a USB connector comprising: a circuit board 3; and a USB connector 31 mounted on the circuit board; wherein the USB connector comprising a body portion, contact pads (inherently), and a frame mounted on the board. Chen does not show whether the body portion is integrally formed on the board. Yen and Yao disclose USB connectors where the body portions of the USB connectors are formed integrally with the associated circuit boards. See port 13 on board 15 of Yao and connector 300 including contacts 111 mounted on board 202 in Yen. At the time of the invention, it would have been obvious to construct the Chen USB body and contacts integrally with the board 3, as taught in Yao and Yen. The suggestion or motivation for doing so would have been to eliminate the solder connections and simplify assembly of the connector as taught in Yen, see col. 4, lines 30-40.

Per claim 2, the Chen body portion is surrounded with the frame.

Per claim 5, the frame is attached to the body.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen, Yao and Yen as in claim 1 in view of Shi et al. ("Shi"). To the extent that Chen does not state that the frame is made of metal, Shi discloses that the frame is metal. At the time of the invention, it would have been obvious to make the Chen frame out of metal. The suggestion or motivation for doing so would have been of ensure reliable grounding and EMI shielding as taught in Shi and as is well known in the art.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen, Yao and Yen as in claim 1 in view of Soubh et al. ("Soubh"). To the extent that Chen/Yao/Yen do not state that the contact pads are made of copper foil, Soubh discloses contact copper foil pads (col. 2, lines 45-50). At the time of the invention, it would have been obvious to make the Chen/Yao/Yen pads out of well known materials such as copper foil as taught in Soubh. The suggestion or motivation for doing so would have been to utilize coppers well known conductive properties as is well known in the art.

***Allowable Subject Matter***

Claims 6-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Regarding claim 6, the prior art does not suggest the device as claimed, including the combination of all the claimed elements, the combination including that the fastening portion comprises a solder pad. Regarding claim 7, the prior art does not


suggest the device as claimed, including the combination of all the claimed elements, the combination including the concaving portion and projecting portion for mounting the frame as claimed.

Claims 10-18 are allowable. Regarding claim 10, the prior art does not suggest the USB connector as claimed, including the combination of all the claimed elements, the combination including coupling pad on the body portion and the frame attached to the coupling pad as claimed.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ross Gushi whose telephone number is (571) 272-2005. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Paula A. Bradley, can be reached at 571-272-2800 extension 33. The phone number for the Group's facsimile is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**ROSS GUSHI**  
**PRIMARY EXAMINER**